

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-50 (canceled).

51. (currently amended): A method for improving performances of a mobile radiocommunication system using a power control algorithm for controlling a transmit power according to a transmission quality target value, said method comprising:

upon receipt of a power control command, determining if a significant change in the required transmit power has just occurred; and

if the significant change in the required transmit power has just occurred, changing the transmit power according to a change including a corresponding change in the required transmission quality target value, in addition to a change according to said power control command;

wherein the required transmission quality target value is a signal-to-interference ratio.

52. (previously presented): A method according to claim 51, wherein said significant change in the required transmit power corresponds to the use of transmission in compressed mode.

53. (currently amended): A mobile station for a mobile radiocommunication system using a power control algorithm for controlling a transmit power according to a transmission quality target value, said mobile station comprising:

means for, upon the reception of a power control command, determining if a significant change in the required transmit power has just occurred; and

means for, if a significant change in the required transmit power has just occurred, changing the transmit power according to a change including a corresponding change in the required transmission quality target value, in addition to a change according to said power control command;

wherein the required transmission quality target value is a signal-to-interference ratio.

54. (previously presented): A mobile station according to claim 53, wherein said significant change in the required transmit power corresponds to the use of transmission in compressed mode.

55. (currently amended): A mobile radiocommunication network entity for a mobile radiocommunication system using a power control algorithm for controlling a transmit power according to a transmission quality target value, said mobile radiocommunication network entity comprising:

means for, upon the reception of a power control command, determining if a significant change in the required transmit power has just occurred; and

means for, if a significant change in the required transmit power has just occurred, changing the transmit power according to a change including a corresponding change in the required transmission quality target value, in addition to a change according to said power control command;

wherein the required transmission quality target value is a signal-to-interference ratio.

56. (previously presented): A mobile radiocommunication network entity according to claim 55, wherein said significant change in the required transmit power corresponds to the use of transmission in compressed mode.

57. (previously presented): A mobile radiocommunication system, comprising at least one mobile station according to claim 53.

58. (previously presented): A mobile radiocommunication system, comprising at least one mobile radiocommunication network entity according to claim 55.

59. (new): A mobile station for improving performances of a mobile radiocommunication system using a closed-loop power control algorithm, comprising:

means for performing one step of changing the transmit power according to a corresponding change in the required transmission quality target value, upon the occurrence of a significant change in the required transmit power;

wherein said power control is performed in the uplink transmission direction of said mobile radiocommunication system; and

wherein said means include a look-up table, containing predetermined values of corresponding changes in the required transmission quality target value, corresponding to different significant changes in the required transmit power.

60. (new): A mobile station according to claim 59, further comprising means for receiving values to be stored in said look-up table, said values being communicated by the network.

61. (new): A mobile radiocommunication network entity for improving performances of a mobile radiocommunication system using a closed-loop power control algorithm, comprising:

means for correspondingly changing the required transmission quality target value, upon the occurrence of a significant change in the required transmit power;

wherein said power control is performed in the uplink transmission direction of said mobile radiocommunication system; and

wherein said means include a look-up table, containing predetermined values of corresponding changes in the required transmission quality target value, corresponding to different significant changes in the required transmit power.

62. (new): A mobile station for improving performances of a mobile radiocommunication system using a closed-loop power control algorithm, comprising:

means for correspondingly changing the required transmission quality target value, upon the occurrence of a significant change in the required transmit power;

wherein said power control is performed in the uplink transmission direction of said mobile radiocommunication system; and

wherein said means include a look-up table, containing predetermined values of corresponding changes in the required transmission quality target value, corresponding to different significant changes in the required transmit power.

63. (new): A mobile radiocommunication network entity for improving performances of a mobile radiocommunication system using a closed-loop power control algorithm, comprising:

means for communicating to mobile stations values to be stored in a look-up table containing predetermined values of corresponding changes in the required transmission quality target value, corresponding to different significant changes in the required transmit power;

wherein said power control is performed in the uplink transmission direction of said mobile radiocommunication system.

64. (new): A mobile radiocommunication network entity according to claim 63, further comprising means for regularly updating said communicated values, on the basis of a quality estimation carried out at the network side.

65. (new): A mobile radiocommunication network entity for improving performances of a mobile radiocommunication system using a closed-loop power control algorithm, comprising:

means for performing one step of changing the transmit power according to a corresponding change in the required transmission quality target value, upon the occurrence of a significant change in the required transmit power;

wherein said power control is performed in the downlink transmission direction of said mobile radiocommunication system; and

wherein said means include a look-up table, containing predetermined values of corresponding changes in the required transmission quality target value, corresponding to different significant changes in the required transmit power.

66. (new): A mobile radiocommunication network entity according to claim 65, further comprising means for receiving values to be stored in said look-up table, said values being communicated by mobile stations.

67. (new): A mobile station for improving performances of a mobile radiocommunication system using a closed-loop power control algorithm, comprising:

means for communicating to a mobile radiocommunication network entity values to be stored in a look-up table containing predetermined values of corresponding changes in the required transmission quality target value, corresponding to different significant changes in the required transmit power;

wherein said power control is performed in the downlink transmission direction of said mobile radiocommunication system.